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ABSTRACT

A study investigated the relationship between beliefs and attitudes toward reading and writing, and the effect of personal journal writing on attitudes and beliefs. Subjects, four intact classes of 95 fourth-grade students enrolled in two public schools in a southeastern metropolitan area, were randomly selected to participate in the study. In each of the schools, one experimental and one control group was randomly selected. Subjects in the experimental groups were instructed in journal writing techniques and wrote in their journals three times per week for six weeks. For the control group, two 15-minute observations were conducted weekly. Reading and writing attitudes were measured before and after intervention. Results indicated that journal writing caused positive reading and writing attitudes to decrease. Analyses of extreme attitudes within the group indicated that after journal writing, students reporting negative attitudes toward writing demonstrated increased positive reading attitudes; and students reporting negative attitudes toward reading demonstrated increased positive reading attitudes. Beliefs did not reflect cultural expectations, as suggested by the psychological model of attitude development from which hypotheses were derived. Findings suggest that: (1) journal writing should be an option; (2) affective assessments should be implemented with cognitive assessments; and (3) cultural influences should be addressed during instruction. (Thirteen tables of data and a figure representing the model of attitude and behavior are included; 54 references are attached. (Author/RS)

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The Effect of Personal Journals on Fourth Grade Students' Attitudes Toward Reading and Writng

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Abstract

The purpose of this study was to investigate the relationship between beliefs and attitudes toward reading and writing, and the effect of personal journal writing on attitudes and beliefs. By combining three areas of research (attitude, reading-writing relationship, and personal narrative), use of personal journals was tested as an effective means for contributing to development of positive attitudes.

Results indicated that journal writing caused positive reading and writing attitudes to decrease. Analyses of extreme attitudes within the group indicated that after journal writing, students reporting (a) negative attitudes toward writing demonstrated increased positive reading attitudes, and (b) negative attitudes toward reading demonstrated increased positive reading attitudes. Beliefs did not reflect cultural expectations, as suggested by the psychological model of attitude development from which hypotheses were derived.

Conclusions include (a) journal writing should be an option, (b) affective assessments should be implemented with cognitive assessments, and (c) cultural influences should be

addressed during instruction.

The Effect of Personal Journals on Fourth Grade Students' Attitudes Toward Reading and Writng

Few would discount the importance of addressing attitude in reading and writing instruction, yet current classroom instruction focuses primarily on cognitive components of learning. The affective aspects of reading and writing behavior are important in facilitating the growth of students into mature readers who will enjoy the life-long habit of effectively using language processes to learn. The problem investigated in this study focused on the relationship between belief systems and attitudes toward reading and writing and the effect of personal journal writing on these attitudes and beliefs. It was hypothesized that by combining and applying the findings of three established areas of research (the affective component of attitude, the reading-writing relationship, and the self-defining nature of personal narrative), personal journal writing could be identified as an effective means of developing positive attitudes toward reading and writing.

As summarized in related literature, an attitude is an unobservable, nonspecific predisposition toward a particular type of response to cultural factors (Shaw & Wright, 1967). The most prominent model of attitude and behavior was developed by Fishbein and Ajzen (1975; Ajzen & Fishbein, 1980) and revised by Liska (1984). The three concepts on which the original model is based are affect (affective evaluations caused by attitudes), conation (behavior/behavioral intentions), and cognition (subjective evaluation of consequences of behavior as related to beliefs). Liska (1984) added another component, which also addresses cultural influences on learners: contingency variables. By including

contingency variables (ie., state-of-mind, social influences, and physical aspects of group interaction), researchers can more accurately account for varying resources which influence behavior and the manner in which they act on behavior. The components of the revised model as illustrated by Liska (1984) are illustrated in Figure One.

Insert Figure 1 about here

As illustrated in the model above, culture or social structure serves as the point of origin for the development of beliefs, although this study did not address aspects of culture which influence belief/attitude development. Liska's conclusions, as interpreted by this researcher, imply that students whose beliefs focus on conseauences will demonstrate negative attitudes toward reading and writing, while students whose beliefs focus on expectations will demonstrate positive attitudes toward reading and writing.

Behavioral intentions exist within the confines of cultural membership, and can be influenced by beliefs, attitudes, and the nature of resources available to the learner. The subjective norms one utilizes in decisions regarding behavior are learned through experience. Beliefs, which determine attitudes, are constantly refined and redefined by experiences, a phenomenon which is supported by consistently high correlations between measures of beliefs and attitudes (Fishbein & Ajzen, 1975; Burnkrant & Bagozzi, 1979; Schlegel & DiTecco, 1982; Davis, 1985; Liska, 1984).

One theoretical dimension relevant to this study is that attitude

can give rise to motivated behavioral intentions, depending on the specific referent of the attitude (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980; Kerchoff, 1976; Scott & Miller, 1986; Midkiff, Burke, Hunt & Ellison, 1986; Liska, 1984; Riding, 1987). While beliefs are difficult to change, repeated positive evaluations of feelings pertaining to reading and writing can serve to change behavior/behavioral intentions. In turn, beliefs become more positive, influencing the orientation of attitudes. This idea can be related, in part, to goal-setting behaviors which are motivated by cultural factors such as personal/societal expectations, affective evaluations made by the learner, and prior experiences such as success or failure in school tasks. In this situation, journal writing can serve to refine the goals of the writer and to reduce anxiety as progress become more clearly defined. Thus, writing and re-reading becomes self-defining (Halberg, 1987), supporting and refining one's role within a specific cultural group, and within society as a whole.

A second dimension is that attitudes can vary in intensity, quality and degree on a continuum from positive to neutral to negative (Davis, 1985; Kerchoff, 1976; Burnkrant & Bagozzi, 1979; Scott & Miller, 1986; Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980; Liska, 1984). Similarly, a third dimension deals with the varying interrelations which exist within an attitude system (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). The interrelations which exist between attitudes is not surprising, given the degree to which cultures, cultural products, and cultural abstractions are dependent on one another. The interrelations result from reactions to repeated experiences, and these reactions may

then influence supporting belief systems and attitudes. Again, journal writing and re-reading may serve to highlight connections which exist between events in life, stimulating and reinforcing a transfer of knowledge from in-school to out-of-school observations. These relationships are influential in the development of belief systems, and may be utilized to effect a change in those systems.

A fourth dimension is that attitudes are relatively stable and enduring (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Zanna, higgins & Herman, 1982). The development of an attitude occurs mainly during the subjective evaluation of motivated behavior (Midkiff, Burke, Hunt & Ellison, 1986; Elwood, 1987). In other words, as decisions are made which result in positive (or negative) experiences, students evaluate both the group of related experiences and the consequences of their decisions. This type of reflection leads to alterations in corresponding beliefs systems, and finally, in attitudes. Thus, academic achievement is strongly related to attitude (Burns, Roe & Ross, 1984; Ransbury, 1973; Groff, 1962; Morrow, 1987). A personal journal may serve to refine attitudes through establishing one's personal history regarding successes and failures. Writing and re-reading journal entries may facilitate the alteration of belief systems through deliberate evaluation of academic successes and failures. This process may facilitate the students' perception of his/her role in establishing and/or achieving academic goals.

The last dimension is a recurrent theme in literature regarding attitudes and is perhaps the most important in providing support that journals may reflect and refine attitudes: rather than being innate or

the result of constitutional development and maturation, attitudes are learned (Ajzen & Fishbein, 1975; Fishbein & Ajzen, 1980; Kerchoff, 1976; Schlegel & DiTecco, 1982; Liska, 1984; Davis, 1986; Patterson, 1986; Strain, Guralnick & Walker, 1986; Riding, 1987). Affective evaluations, conation, and cognition toward specific referents within culture serve to tailor attitudes through changes in belief systems. Culture, specifically family and peer relationships, plays an important role in developing belief systems. The influence of writing and re-reading personal narrative on making sense of one's culture, transfer of knowledge, and refining self through interrelated attitudes based on belief systems points to writing as a valuable tool for learning and acquiring a positive attitude toward literacy.

The Reading-Writing Connection in the Context of Journal Wtiting

Through participation in journal writing and re-reading, the parallel natures of reading and writing processes present the student with meaningful opportunities to develop interrelated abilities in reading and writing. Personal journals, or personal narratives, are composed of the feelings, events, and reflections which occur in the writer's life and which contribute to his/her personality. A personal journal is an attempt to understand, organize and structure one's life. Generally, surface structure is secondary to recording the constant flow of thought, whether focused or random.

Personal narratives have been found to be useful in teaching students the reciprocal nature of knowledge gained in and out of the school setting (Stocking, 1988; Fulwiler, 1987). In addition to an

increase in transfer of knowledge, students who participate in personal journal writing and re-reading demonstrate an increase in the amount of writing between assignments (Stocking, 1988). Another value of personal journal writing important to attitude development is that it may include opportunities to understand self and culture via introspective writing. Through the process of selective memory, the writer defines and redefines self through patterns which guide thought and serve to confirm one's self identity (Jensen, 1984).

Some researchers (Felland, 1980; Monk, 1958; Grobe & Grobe, 1977; Loban, 1963; Holt & Vacca, 1984) believe that interrelations which exist between reading and writing processes form the framework for developing and maintaining positive attitudes toward reading and writing. Moffett (1983) asserts that reading and writing share the power to change one's stream of consciousness. Other researchers have confirmed the influential and complimentary nature of reading and writing, their results indicating that success in one is a good predictor of success in the other (Ault, 1985; Kucer, 1985). Even though the two processes are known to facilitate one another from the earliest stages of development, the degree to which they are interrelated and the nature of the relationships needs further exploration (Stotsky, 1983; Juel, Griffith & Gough, 1986; Squire, 1983).

Personal Narrative as Related to Attitude Development

In discussing personal journal writing and rereading as a possible means for changing attitudes, several theoretical assumptions offered by proponents of journal writing should be addressed. The first deals with

the introspective nature of personal journal writing - a key concept to be addressed in asserting that it has an influence on attitude development and maintenance. Halberg (1987) states that concept of self within culture is the foundation for evaluation of experiences, the distinctness of prior experiences constituting the uniqueness of self. Following this reasoning, personal journal writing would depend on the selective memory (which creates distinctiveness in experiences) and patterns of thought which serve to define self, as purported by Jensen (1984).

The second point, offered by Murray (1985), is that journal writing and re-reading can serve to remind the writer that what has been written is opinion, which emphasizes the subjective nature of most writing. Noting this frees the writer to become detached from his/her own thoughts and allows a broader perspective in performing within one's own culture and in interpreting culturally driven acts of others (Schwarzwald, 1986; Nagata, 1986; Rowe, 1987; Jahoda, 1986; Jagacinski & Nicholls, 1987). This theory supports the transfer of knowledge between life and instructional emphases (Stocking, 1988; Fulwiler, 1987).

The third point, provided by Rose (1988), is that writing and re-reading personal journal entries has been determined to be a recursive, continuous activity which reflects key insights into culturally shared assumptions about the nature of literacy, or knowledge utilization. Through close examination of journal entries, a cycle was observed which consisted of the acquisition and practical applications of reading and writing skills and an awareness of both personal and public uses of literacy. Theoretically, these assumptions about reading and writing

would be revealed through journal entries providing insight into the writer's concept of literacy. This awareness may lead the writer to an increased realization of reading and writing and its cultural role. Attitudes toward reading and writing, as the vehicles through which this realization occurs, would therefore be positively influenced.

In examining theoretically based research concerning attitude development, the reading-writing relationship, and the nature of personal journal writing, three areas in need of additional research are apparent:

1. To what extent are reading and writing attitudes related?
2. Will an extended period of personal journal writing and re-reading influence attitude toward reading and writing?
3. To what extent is attitude related to belief systems of students?

This study attempted to answer these questions by (a) confirming parallel growth in the affective component of attitude toward reading and writing, (b) investigating the use of journal writing and re-reading as an illustration of the notion of using cultural norms and resources to guide behavior, and (c) establishing whether students are responding to expectations or reacting to consequences, thus gaining insight regarding appropriate means for guiding both academic and affective growth.

Method

Subjects

Four intact classes of 95 fourth grade students enrolled in two public schools in a southeastern metropolitan area were randomly selected to participate in this study. In each of the schools one experimental and one control class was randomly selected. Schools/classes were chosen on the basis of similarities between both student populations.

Insert Table 1 about here

Instruments

In order to assess attitude toward reading, Scales to Measure Attitude Toward Reading: Intermediate Scale (Heathington, 1975) was administered. The intermediate scale consists of 24 orally administered items, to which students respond on individual answer sheets. Sample items from the intermediate scale are as follows:

You feel uncomfortable when you're asked to read in class.

You feel happy when you're reading.

You don't check out many library books.

You seldom have a book in your room at home.

You think reading is work.

Choices are indicated using a Likert scale (strongly disagree, disagree, undecided, agree, and strongly agree) and are valued from one to five points. The scale includes nine positively weighted items and 15 negatively weighted items. A test-retest method was used by Heathington

to establish reliability (r = .87). The possible range of scores is 5 X 24(120) to 1 X 24(24).

Writing attitude was measured using the Emig-King Writing Attitude Scale for Students (Emig & King, 1979). The scale consists of forty orally administered items, and answers are indicated by students using individual answer sheets. Choices are indicated using a Likert scale (almost always, often, sometimes, seldom, almost never) and are valued from one to five points. Cronbach alpha reliabilities for the scale averaged to .677. Writing Attitude Scale for Students (Emig & King, 1979) was written for middle and high school students, so it was necessary to adapt 14 of the 40 items before the scale could be administered to fourth grade students. Minor vocabulary changes were made which did not alter the focus of the items. Sample adapted items from the scales are as follows:

Original: I voluntarily reread and revise what I've written.

Adapted: I choose to reread and correct what I've written.

Original: I write for the school literary magazine, newspaper, or yearbook.

Adapted: I write for the school newspaper, magazine or yearbook.

Original: I voluntarily keep notes for school courses.

Adapted: I choose to keep notes for school studies.

Both the original and adapted scales were administered to a randomly, intact class of 25 ninth grade students. The scales were administered in one session lasting approximately one hour. Group means were 107.24 on the original scale, and 108.04 on the adapted scale. The Pearson Product Moment Correlation was r = .95, $p < .0001$., indicating that the

original and adapted scales remained equivalent.

Students were asked to generate statements which dealt with their beliefs about reading. These statements were recorded on pages which included the words "I believe..." written five times. No minimum or maximum number of statements were requested. The same format was used in collecting belief statements about writing. Statements were divided into thought units, then each thought unit was categorized as representing beliefs related to cultural expectations or cultural consequences. Inter-rater agreement on the type and frequency of thought units was established by comparing the classifications of statements made by three trained researchers. On the pre-assessment analysis of scoring, 97% agreement between raters was established, and on post-assessment analysis, 96.44% agreement was established. These fogures indicate that scoring procedures were consistent across the three raters.

Administration of Scales

In each class, belief statements about writing and reading were collected in one 30 minute period. The remaining assessments were composed of two 45 minute sessions, and included administration of the reading and writing attitude scales. All assessments were collected prior to instructing experimental classes concerning journal writing procedures. The assessment process described above was repeated, after a six week period of instruction in experimental classes, during post-assessments. A final written free response was collected from each student in experimental classes. Students were asked to record their thoughts about writing a personal journal. These responses were used to

support conclusions drawn from results of statistical analyses.

Treatment

The treatment provided for the experimental classes is described below, followed by observation procedures used for control classes.

Experimental Group. The researcher introduced personal journal writing to students by an interactive reading of Alaska: Twenty Poems and a Journal (Bagert, 1988). After reading was complete, a semantic mapping technique was used to assess students' knowledge of journals/diaries. As answers were given, they were recorded on the board. After establishing what was known, collectively, about journals, the researcher shared sample (ficticious) entries with the students. These sample entries focused on varying topics (school, home, hobbies, random thoughts), and varied in length, neatness, and grammatical accuracy. Students were then asked to write an independent entry.

After completion, daily writing procedures were reviewed, including storage of journals (as determined by the teacher), and access to journals during the school day. The researcher emphasized that re-reading prior entries should precede writing new entries. It was also estanlished that daily topics were to be selected by the student. Other aspects of journal writing were addressed, including the format for writing the entry (name and adte were to be included), appropriate length of individual entries (determined by individual students), reduced emphasis on mechanics, coupled with increased emphasis on content, and confidentiality.

After initial discussion, the researcher supervised three journal writing periods weekly for six weeks, rotating times between

experimental classes to the extent that students' schedules would allow. Each session was composed of a three to five minute re-reading time when students re-read anything they had written in their journals, followed by a ten minute writing time. Students were allowed to write whenever they had free time, although the teacher did not conduct journal writing sessions, nor encourage/discourage students regarding journal writing.

As students wrote in their journals, the researcher took field notes, recording verbal/nonverbal behavior of students as they wrote. This procedure reinforced students' writing behavior in much the same manner as observing teacher participation during sustained silent reading reinforces students' reading behavior. Posture, student questions, classroom climate, changes within the class, length of writing time, and task-commitment were noted by the researcher throughout the treatment.

Control Group. Two fifteen minute observations were conducted weekly, rotating times as in experimental classes. During this time, the researcher took field notes concerning students verbal/nonverbal behavior and also recorded the teacher's activities, including implied goal, environment, materials, instructional style, and evaluation.

Scoring

It was determined by the three trained researchers who participated in categorization of belief statements that thought units focusing on expectations were more typically passive, focused on what reading and writing represent, and/or dealt with types/forms of reading/writing. Raters used key words to categorize each thought unit. Sample thought units (key words are underlined) which were categorized as dealing with

expectations are:

I believe reading/writing...

is fun.

is boring.

is better than listening to music.

should be shared with friends and family.

sometimes is hard.

is good in schools.

is the most important thing people do.

is educational.

Thought units focusing on consequences were more typically active, specific, and focused on direct results of reading/writing. Key words were also used in categorizing thought units dealing with consequences. Sample thought units (key words are underlined) categorized as dealing with consequences are as follows:

I believe reading/writing...

can help me fill out forms for school

is using your skills.

makes you smarter.

teaches you your alphabet.

shows people how to get through life.

lets me pass to the next grade.

is good exercise for your eyes/hands.

allows you to use your imagination.

Procedures for categorizing thought units were identical for pre- and post-tests. A correlation coefficient was then computed to

establish reliability between raters.

The reading attitude scale was scored as directed by the author, (Heathington, 1975). Eight of the 24 items are negatively weighted, and on those items, responses were valued as follows: strongly agree, five points; agree, four points; undecided, three points, disagree, two points; and strongly disagree, one point. The remaining 16 positively weighted items were assigned the following values: strongly disagree, five points; disagree, four points; undecided, three points; agree, two points, and strongly agree, one point. Students were categorized as having positive attitudes (84 to 120 points), neutral attitudes (61 to 83 points), or negative attitudes (24 to 60 points).

The writing scale was scored as directed by the authors (Emig & King, 1979). All 40 items included in the scale are equally weighted, values assigned to responses were: almost always, five points; often, four points; sometimes, three points; seldom, two points; and almost never, one point. Students were categorized as having positive attitudes (139 to 200 points), neutral attitudes (90 to 138 points), or negative attitudes (40 to 89 points).

Results

Descriptive statistics, based on pre-assessments, were computed in order to determine whether student scores were normally distributed, an assumption of the analysis of variance used to test hypotheses one and two. A summary of descriptive statistics can be found in Table 2.

Insert Table 2 about here

Results on the reading pre-assessments indicated a slightly positive skew within a relatively normal diatribution. The writing attitude pre-assessments indicated a slightly negative skew within a relatively normal distribution. The ANOVA model used in analyses was designed to compensate for differences which existed between experimental and control groups.

Question One

Separate ANOVA (analyses of variance) were used in analysis of data relating to research question one: whether differences existed between experimental and control groups on pre- and post-treatment measures of attitude toward reading and writing. Included in the analyses pertaining to question one was the isolation and analyses of pre- and post-assessment scores of students demonstrating extremes in attitude toward reading and writing.

Ut was determined that students' positive attitudes toward reading decreased as a result of the journal writing treatment. In additiion, experimental students' attitudes toward writing decreased. However, students in the control group demonstrated an increase in positive attitude toward reading and writing on post-assessments. The results for reading and writing measures can be found in Tables 3, 4, and 5.

Insert Tables 3, 4, and 5 about here

As summarized in these tables, the analysis of variance yielded three significant results: (a) there is a difference between the experimental and control groups on post-treatment measures of attitude toward

reading, (b) differences exist between pre- and post-treatment attitude toward writing of subjects within the treatment group, and (c) there are differences between experimental and control groups on pre- and post-treatment attitude toward writing.

In analyzing scores of the 25 students who demonstrated negative extremes in attitude toward reading on pre-assessments, it was determined that students possessing negative attitudes toward writing experienced significant positive gains in post-assessment attitude toward reading. In addition, students demonstrating positive extremes in writing attitude gained significantly in writing attitude. (See Table 6 for results.)

Insert Table 6 about here

Specifically, negative attitude readers demonstrated the greatest difference in pre- and post-assessment reading attitude scores followed by positive attitude writers who also demonstrated a significant difference in means on pre- and post-reading assessments. Students who had (a) negative attitudes toward reading did not make gains in writing, (b) positive attitudes toward reading did not make gains in reading or writing, (c) positive attitudes toward writing did not make gains in writing attitude, and (d) negative attitudes toward writing did not make gains in reading or writing.

Question Two

Question two pertained to the degree to which extremes in reading and writing attitudes are related. The 25 students demonstrating either negative or positive attitudes were isolated, and a

Spearman's Rho Correlation matrix was computed to determine the extent of the relationship between reading and writing attitudes.

Analysis of data revealed that attitudes toward both reading and writing, when negative, are not significantly correlated. However, analysis yielded several significant correlations pertaining to positive attitude students in that students who expressed (a) positive attitudes toward reading on pre-assessments also expressed positive attitudes toward writing on pre-assessments, (b) positive attitudes toward writing on pre-asessments were also identified as positive attitude readers on pre-assessments, and (c) positive attitudes toward reading on post-assessments were also identified as having positive attitudes toward writing on post-assessments. The correlations discussed above can be found in Table 7.

Insert Table 7 about here

As the values in Table 7 demonstrate, attitudes, when positive, are significantly related, whereas negative attitudes are not significantly related.

Question Three

A correlation matrix was computed to determine the extent to which attitude was correlated to expressed beliefs about reading and writing. In examining belief statements written by the 25 students who demonstrated writing attitude extremes, it was determined that (a) positive attitude writers' belief statements about reading focused slightly more on consequences than expectations, (b) positive attitude

writers tended to focus on expectations about writing on pre-treatment assessments, and focused equally on consequences and expectations on post-assessments, and (c) on pre-assessments, negative attitude writers focused equally on consequences and expectations about writing, while on post-assessments, they focused on consequences when writing about reading. (See Table 8 for a summary of these results.)

Insert Table 8 about here

Students who were categorized as having extreme attitudes toward reading were examined in order to determine the extent to which they focused on consequences when writing belief statements (pre- and post-treatment) about reading.

As summarized in Tables 9, 10, and 11, the 13 students who possessed positive attitudes focused primarily on consequences, while the 11 who demonstrated negative attitudes did not.

Insert Tables 9, 10, and 11

about here

In addition to the analyses discussed above, the researcher computed correlations between expectations and consequences about reading and writing written pre- and post-treatment. (See Table 12 for a summary of results.) Negative correlations were found to exist between (a) pre-reading expectations and pre-reading consequences, (b) post-writing expectations and post-writing consequences, and (c) pre-reading expectations and pre-writing expectations. Positive correlations were found to exist between (d) pre-writing consequences and pre-reading consequences, (e) pre-writing expectations and pre-reading expectations re-writing consequences and post-writing consequences, (f) pre-writing expectations and pre-reading ecxpectations, (g) post-writing consequences and pre-writing consequences (h) post-writing consequences and post-reading consequences, and (h) post-writing expectations and post-reading expectations.

Insert Table 12 about here

Correlations demonstrate that significant differences exist between belief statements of students focusing on consequences and those focusing on expectations on both pre- and post-assessments, thus providing support for the conclusion that consistency exists between

type of expressed beliefs pertaining to reading and writing on pre-assessments, and between reading and writing belief type on post-assessments. In other words, the focus of belief statements in one language process mirrors the focus of beliefs in the remaining language process.

Summary of Results

Methodology used to instruct control groups was not investigated in this study; therefore, conclusions cannot be drawn regarding pre-/post-treatment changes in attitude measures and belief statements.

Research Question One

The analyses described above indicate that the treatment which the experimental group received caused the reading and writing attitudes of those students to decrease significantly. However, extreme attitude writers (both positive and negative) demonstrated an increase in reading attitude. Negative attitude readers also demonstrated an increase in attitude toward writing. For a summary of differences between pre-and post measures of extremes in attitude toward reading and writing, see Table 13.

Insert Table 13 about here

Research Question Two

The strength of the reading-writing relationship was also examined in this study. Significant correlations were found which indicated that relationships between positive attitudes are stronger and more enduring than those between negative attitudes. Correlations were calculated

using negative attitude students' reading and writing attitude scores on pre- and post-assessments, and were not found to be significant.

Research Question Three

The focus of beliefs toward reading and writing, as expressed in written statements was examined by computing a correlation matrix. Results indicate that journal writing caused beliefs to focus primarily on consequences, regardless of attitude. Positive attitude readers and writers focused significantly on consequences both pre- and post-treatment. Negative attitude students were more evenly divided on the focus of both pre- and post-assessments of reading and writing beliefs.

Discussion

School and Class Environment

Since journal writing was completed during class time, it is appropriate to begin this discussion with a thorough description of the instructional practices utilized in participating classes. The following description is provided to illustrate the climate of each class and to provide insight regarding the types of activities in which students were required to participate. In the paragraphs below, classes are described using the specific components of effective instruction, as identified by Ratekin, Simpson, Alverman, and Dishner (1985). These include organization of lessons, implied and stated purposes, instructional materials and resources used, activities included, instructional practices, and evaluation. Information was obtained through systematic observation and field notes recorded by the researcher.

Organization. Both experimental and control teachers at School A designed lessons which usually involved the whole class or groups of more

than 10 students. During these activities, students remained in their desks and attended to teacher directions. When not attending to instruction as a group member, students worked independently on worksheets. At School B, experimental class lessons were presented to the whole group, seated, and in rows. The control class was organized into groups of four to eight students, each group having a leader who was encouraged to assist in teaching whenever possible.

Implied and Stated Purpose. Both the experimental teacher and the control teacher at School A stated purposes of lessons, which typically dealt with isolated skills instruction. Since the text structured lessons, the purposes were implied to the extent that they were implied in the text. The control teacher at School B generally stated the purposes of initial lessons, and proceeded this with multiple lessons in which purposes were clearly implied. Quite often, secondary purposes dealing with affective factors were included.

Instructional Materials and Resources. Experimental and control teachers at School A and the experimental teacher at School B employed reading materials supplied by basal publishers, including worksheets, student texts, teacher manuals, and workbooks. On some occasions, teacher-made and commercial games were included as follow-up activities. The control teacher at School B employed diverse materials, such as basal materials, supplementary texts, science equipment for experiments, art materials, maps and globes, films and filmstrips, and other audio-visual aids.

Activities Included. Both experimental and control teachers at School A and the experimental teacher at School B designed and implemented

activities which could be completed independently by students while seated at desks. Completion of basal series skill pages, teacher designed board work, and independent writing assignments constituted the greatest percentage of opportunities for students to demonstrate mastery. The control teacher at School B included discussion, music, art, reading, writing, drama, group and individual work, contests, and independent projects as possible cross-curricular opportunities for students to demonstrate mastery.

Instructional Practices. Both experimental and control teachers at School A and the experimental teacher at School B employed instructional strategies which were generally limited to lecture, literal level question and answer sessions, and silent/oral reading of basal texts. The control teacher at School B employed discussion as a primary instructional practice, although modeling, and small group/individual investigations were routinely incorporated into instruction.

Evaluation. Both experimental and control teachers at School A and the control teacher at School B based evaluation on student performance on skill tests and worksheets, individual participation while in a group, and performance on teacher-made tests. The control teacher at School B evaluated students based on observation, participation, teacher- and basal-made tests, completion of projects, and peer-/self-evaluation.

As the description above illustrates, both classes at School A and the experimental class at School B had a great deal in common. The three classes were highly structured, and instruction was determined primarily by suggestions made in basal materials. The control class at School B differed in many reapects, including the types of materials, activities,

instructinal strategies and evaluation techniques.

Limitations of the Study

Classroom Environment. One limitation concerns the environmental characteristics within each class. On experimental teacher was enforcing a new, strict discipline policy to which several students reacted negatively. The other experimental teacher was experiencing personal problems over which students were concerned. In addition, during the fifth week of data collection, one experimental teacher informed the class that the increase in their homework load was due specifically to journal writing. It is possible that results were affected by this announcement.

Length of the Treatment. As research on attitude development states, attitudes are learned behaviors which are enduring. Because students had experienced four and one-half years of school prior to data collection, it is possible that the length of the treatment was not sufficient to significantly change attitudes.

Research Question One

It was determined that personal journal writing caused positive and neutral reading and writing attitudes within the total sample to decrease. However, in examining the smaller sample of attitude extremes, it was apparent that journal writing and rereading caused an improved attitude toward reading for most of the students demonstrating either positive or negative attitudes, regardless of initial attitude toward writing. This highlights the importance of carefully assessing attitudes and using results to plan appropriate activities designed to capitalize on the relationship between reading and writing.

Through examination of final written free responses of students who participated in this study, it was apparent that positive attitude students most resented having role-defining, attitude developing activities such as personal journal writing mandated. Responses clearly reflected their feelings, as evidenced by the following excerpts from students identified as positive attitude readers and writers on pre-assessments, and who decreased in attitudes on post-assessments:

> Ray: I don't like journals because it took up our spelling time. I feel like I was so mad because I had to miss my spelling time. I hate doing journals. They make me sick.
>
> Donald: I hate journal time because when she comes in we don't have enough time to finish our other work in class. When the journal lady leaves it be time to go to language and then we have to do spelling for homework.
>
> Rebecca: Journal writing is something that just takes up too much time, and as we all know, time is money. We can't waste it on just anything we want. Journal writing didn't really do me any good because I have five journals going right now. What I'm trying to say is that I already knew what it was like before you came.

The message these excerpts carry is that the time constraints under which these students must perform take precedence over the incorporation of activities such as journal writing. Writing in journals merely increased the pressure students faced in completing remaining tasks. Ray, Donald and Rebecca were accurate in their assessment that journal writing was not the most appropriate activity on which to devote their school-time, due to the fact that their attitudes were positive prior to initiating journals

in their classrooms.

This finding points to the need for educators to incorporate opportunities for decision-making regarding activities which individual students are expected to complete. Including such opportunities would make students' learning experiences more meaningful, due to an increased sense of ownership of time and the manner in which energy is expended while at school. In examining responses of those demonstrating negative attitudes on pre-assessments, it is evident that some found journal writing to be a meaningful experience which served as a facilitator for other kinds of learning. The following excerpts from students identified as having negative attitudes on pre-assessments which increased to neutral/positive attitudes on post-assessments, illustrate this point:

> Rose: I think journal writing helped me to read and write better because I didn't read and write as much as I do now. A journal is just like a friend because [if] you have something to say you could just write it in your journal. You could have a journal at home and a school journal.
>
> Yolanda: I liked it. It has done a lot for me. Now I have started to write in my other diary. I write about people, animals and things like that. I have solved that problem about the boy in fifth grade.
>
> Emmett: I love writing in my journal because it is a smart thing to do. One day when I grow up, I will show my journal to my children and teach them how to write.
>
> Sheri: Journal writing has helped me to write better because at first I couldn't write good until you came.
>
> Mitch: It helps me to study people.

The excerpts above reveal that negative attitude students used reading and

writing to learn about coping in their world. Rose, Yolanda and Sheri felt uncomfortable about their writing abilities but through journals began to see small improvements. They also demonstrated their reasoning abilities in that they began to look at not only the quality of their writing but the frequency. Emmett tells about the future, and how the activities he is doing now will help him and others later in life. Mitch is perhaps the most perceptive of all, in that he realizes that journal writing has social value.

Journal writing proved to be beneficial in developing some students' attitude toward reading, especially those who initially demonstrated negative attitudes toward reading. Again, excerpts from students' written responses illustrate this point most effectively:

> Delwyn: At first I didn't like journal writing, but then it helped one day when I was feeling down. My Mama said I must like my diary because I sure do read it a lot. I wish it would help me get a better social studies grade.
>
> Chandra: Writing in a diary helps you get things off your chest. It helped me to read better, too. Mrs. Henderson said that reading helps writing and writing helps reading. Now I see that that is true.
>
> Jerry: Sometimes I like journal writing. It is important to me to learn my writing skills. I like to write long journals. I solved some of my problems by writing. My handwriting is better.

Jerry, Chandra and Delwyn were able to verbalize specific ways in which journals helped them, leading to an increased attitude toward reading. Delwyn and Chandra were able to relate journal writing to changes in reading behavior/ability, while Jerry had not made the

connection between his increased reading attitude and journal writing.

Results of the study also indicate that neutral attitude readers and writers require careful monitoring concerning the appropriateness of activities, in that those designed to develop attitudes may differ greatly from those designed to maintain attitudes. The following excerpts were written by students identified as having neutral attitudes on both pre- and post-tests of reading and writing attitude.

> Anna: I think journal writing is stupid because it kept me from having fun and all you did was write and write and write. It helped me a little. Only one day I liked it and that was because I was mad. I got to show how I felt and that made it better.
>
> Katrina: I like writing in my journal because it was fun. I would like to write in it again, but I don't want to. It helped me with my words and how to read and write a lot. I got tired of writing in my journal.

As is evident from the responses of neutral attitude readers and writers, ambiguous feelings and varied repercussions resulted from the journal writing experience. Their comments serve as evidence of the internal conflicts which sometimes arise when activities are not appropriate. It is only by incorporating varied, frequent assessments of attitude that educators may successfully plan and implement attempts to develop and maintain students' attitudes.

The observations made in students' responses reinforce the recommendation made by Goodman and Goodman (1984) that learning about language processes should occur within a personally meaningful framework. As seen in student responses, students evaluate the worth of activities on the basis of their purpose and the time and effort required to complete

them. In addition, the excerpts from student responses demonstrate that students who fall in the neutral range in reading and writing attitude express ambiguous feelings about journal writing. One consistent thought is that journal writing was better on some days than on others. Thus, assessment of affective factors such as attitude is important in planning activities which will be appropriate for students during certain times of the day or school year. This observation is supported by both effective teaching research (Brophy, 1988) and supporters of holistic instruction (Glazer & Searfoss, 1988).

Research Question Two

Results indicate that reading and writing attitudes, when positive, are strongly correlated. However, this is not true when attitudes are negative. The literature pertaining to the reading-writing connection states that attitudes are closely related, as are the language processes themselves (Morrow, 1989; Holt & Vacca, 1984; Dyson, 1974; Clay, 1975) but examination of the relationship between and within extremes in attitude has not been emphasized in research in this area. Morrow (1989) addresses the young child's trial and error experimentation with language acquisition, stating that personal motivation directs these experiences. Her statement can be extended and applied to the results of this study: if successful attempts at learning about language facilitate additional learning about language, then it would follow that positive attitude toward one language process facilitates positive attitude toward another. This would explain the strength of the relationship between reading and writing attitudes among positive attitude readers and writers. It would also apply to negative attitude readers and writers, in that such

attitudes would be unpleasant, preventing the learner from making necessary connections about reading and writing processes, which a positive attitude reader and writer would be likely to do. Thus, the relationship between language processes would be weakened in cases where attitudes were negative.

Cazden-Gumperz (1981), Donaldson (1978), and Wells (1981) have discussed the importance of helping students develop an understanding of the manner and degree to which language processes differ in addition to the ways they are alike. Results of this study suggest that in cases where attitude is negative, it may be wise to stress differences between reading and writing rather than stressing similarities. Helping students to understand and appreciate divergence between the two processes may provide an opening through which further information can be channeled. At the point when information is readily accepted, educators may then broach the interdependence between the processes, as recommended by Holt and Vacca (1984).

Free responses written by several students who demonstrated significant increases in reading or writing attitude were emotional and reflected a great deal of thought. John, a male in the experimental group, discussed the general content of his journal, and the specific feelings which accompanied what he wrote. His response was:

> Journal writing is good. It's important to make you understand that you have feelings, I guess. It'll make you kind of sad. I used to have a diary, but see, my mama burned it. I didn't know she was going to put it in the fireplace. ...I was talking about her, the way she fussed at us and stuff...if we don't clean the house. I started crying and ran to my

room and then I said, "I'm going to start leaving my journals at school," and now I've got one at school. I write about my friends I used to have, I write about me and my mom. One time I just wrote the word happy. If I don' write my feelings, they'll only be in my mind the rest of my life.

Rodney, a thirteen year old fourth grader in the experimental group was equally convinced that journals served as an emotional outlet:

I write about fights and places I went to during the summer and stuff like that. Like the summer I was running track and I won three trophies and a ribbon. I'd been wanting to run track for the longest time. The first day the coach was hollering at me and stuff because I wasn't doing the right things. ...when I got home my step-mother was hollering because I wasn't doing the right things, an my mama say, 'Don't worry,' because it was just my first year. And then I started getting excited because I liked the running. I wrote all this in my journal at home. ...I wrote about my grandpa because he might die pretty soon because he can't speak that well and get up and stuff like that. He very old, so I like to take care of him. He talks to me about dying soon. It makes me feel bad so I write it out.

The excerpts above illustrate that, for John and Rodney in particular, journals can serve to focus both positive and negative feelings. Both boys stated that one of the most important aspects of journal writing is that it affords the opportunity to reflect on experiences so that one may move forward, gaining new experiences to expand past experiences.

Research Question Three

Results of this study disputed a portion of Liska's (1984) revision

of the model of attitude development authored by Fishbein & Ajzen (1975; Ajzen & Fishbein, 1980). As illustrated by the model, repeated experiences are evaluated by the learner. When evaluations (made by the learner and by his/her culture) are repeatedly negative, beliefs about that subject/activity are altered negatively, resulting in decreased attitudes toward that subject/activity. Likewise, when repeated experiences are accompanied by positive evaluations, beliefs accompanying attitudes then become increasingly more positive. As applied in this study, beliefs focus on expectations when attitude is positive or consequences when attitude is negative. Students who express neutral attitudes were expected to focus equally on expectations and consequences. Results indicated that these fourth grade children, regardless of attitude, do not express beliefs which can be consistently correlated to their attitudes, as defined in Liska's (1984) revised model. However, it was determined that beliefs of positive attitude subjects focused on consequences both before and after treatment. Negative attitude subjects did not focus on either type of belief, but were equally divided between the two. Beliefs of students expressing extremes in attitude toward reading and writing were more easily changed than attitudes. This portion of the model was validated, in that as attitudes decreased, belief statements became more focused on consequences. This finding is supported by existing research (Davis, 1985; Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980; Liska 1984) regarding the role and nature of beliefs which serve to provide structure for attitude development. This finding highlights the importance of structuring the learning environment so that cultural expectations of learners receive attention. The productivity

implied in expectations must be approached from the perspective that it is important and helpful both personally and publicly. Removing (or reducing) the emphasis from what will happen if students do not learn to what can happen when they do learn may serve to motivate participants involved in the education of children.

In summary, six conclusions were formed after examination of the results obtained in the study. They include (a) that journal writing should not be mandated for all students, but should be an activity which is encouraged for negative attitude readers and writers, (b) students should have increased decision-making opportunities regarding the manner in which their time and energies are spent while in the classroom, (c) reading and writing instruction for those who demonstrate neutral attitudes toward reading and writing should be based on a variety of routinely administered assessments designed to measure changes in beliefs and accompanying attitudes, (d) beliefs, which form the basis for attitudes, can be altered negatively when activities are inappropriate for development/maintenance of students' attitudes, (e) for negative attitude readers and writers, educators should discriminate between language processes rather than highlight similarities, perhaps allowing students to develop positive attitudes toward one language process, and (f) the emphasis which currently exists in educational environments pertains to cultural consequences of not learning the material which is presented.

Directions for Future Research

Results of this research generated several implications for practitioners and researchers interested in directions for future research. First, this study has suggested that not all students benefit

from role-defining, affective activities such as journal writing. The classroom teacher would be instrumental in attempts to investigate further the characteristics of these students, and in identification of assessments which can be administered quickly, allowing for immediate revision of plans or continuation of activities. Second, results of this study indicated that fourth grade students focused on consequences when writing about beliefs, regardless of attitude. Conducting a similar study with young readers and writers, perhaps kindergarten and second grades, may provide insight as to whether students enter school focusing on consequences. This knowledge could provide insight regarding preventive measures which could be taken in efforts to retain emphases on expectations. Third, an analysis of the content of journals would be beneficial to both researchers and practitioners. Entries of students demonstrating attitude extremes in reading and writing could be compared to neutral attitude students (or those demonstrating opposite extremes) in terms of the frequency of specific types of references. Expressed beliefs could also be analyzed, and additional information regarding the identification/definition of beliefs may be generated by such a study.

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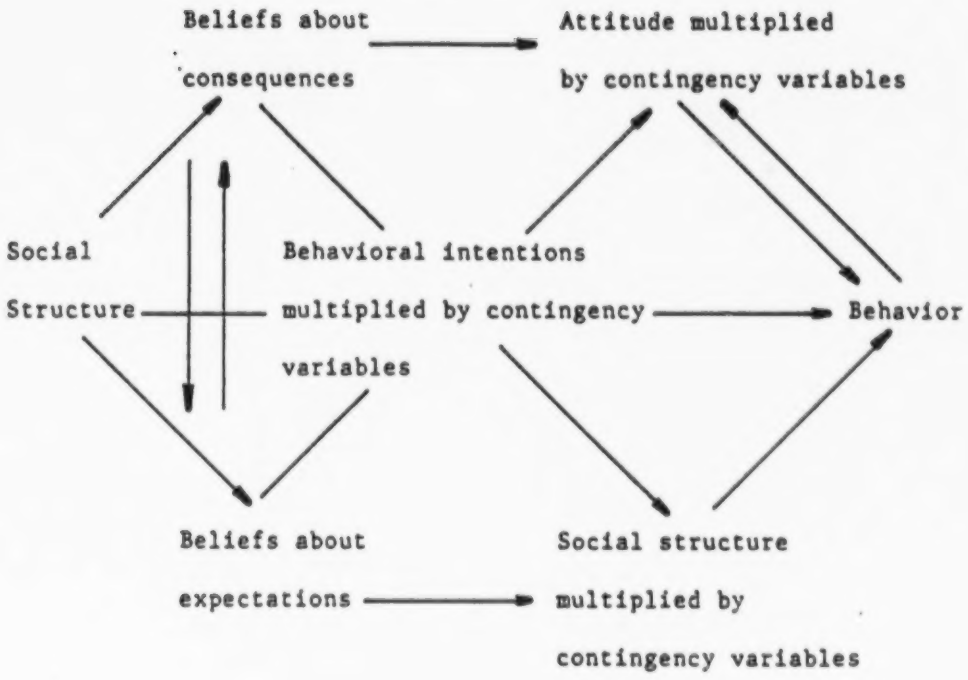
Figure Caption

Figure 1. Model of attitude and behavior (Liska, 1984)


Beliefs about
consequences
Attitude multiplied
by contingency variables
Social
Structure
Behavioral intentions
multiplied by contingency
variables
Behavior
Beliefs about
expectations
Social structure
multiplied by
contingency variables

March 29, 1990

Permission to reproduce the 1984 Revised Model of Attitude Development was granted by Alan Liska during a telephone conference conducted at 2:30 p.m. on March 28, 1990.

Table 1

Comparison of Characteristics of Participating Classes

Characteristic	School A		School B	
	E*	C**	E	C
African-American	17	16	18	19
Caucasian	8	4	7	6
Male	12	12	11	14
Female	13	8	14	9
Free lunch	20	19	22	21
Reduced lunch	2	-	2	1
Total students	25	20	25	25

Note. * Experimental Class

** Control Class

Table 2
Descriptive Statistics Based on Pre-Assessments

	Experimental	Control
Reading		
(Possible score 24 - 120):		
Mean	72.2631	71.12405
Standard Deviation	15.8148	14.3621
Variance	250.1109	187.7357
Skewness	.5746	.1512324
Kurtosis	.4696	.9620559
Range	88	82
Writing		
(Possible score 40 - 200):		
Mean	118.9474	119.3368
Standard Deviation	21.1516	24.0453
Variance	447.3908	527.2683
x Skewness	-.2845	-.277363
Kurtosis	1.0303	1.0667
Range	117	124

Note. Experimental n = 50; Control n = 45.

Table 3
ANOVA for the Dependent Variable of Reading Attitude

Source	Degrees of Freedom	Type III Sum of Square	Mean Square	F Value	$p < F$
Treatment	1	1536.6009	1536.6009	13.33	.0004
Subject within Treatment	93	27443.6622	295.0931	2.56	.0001
Time	1	129.4821	129.4821	1.12	.2920
Treatment by Time	1	609.3558	609.3558	5.29	.0237

Note. $n = 95$.

Table 4
ANOVA for the Dependent Variable of Writing Attitude

Source	Degrees of Freedom	Type III Sum of Square	Mean Square	F Value	$p < F$
Treatment	1	14.5032	14.5032	0.04	.8378
Subject within Treatment	93	67071.1600	721.1953	2.10	.0002
Time	1	245.2809	245.2809	0.71	.4008
Treatment by Time	1	1918.7125	1918.7125	5.57	.0203

Note. $n = 95$.

Table 5
Means and for Dependent Variables of Reading and Writing on Pre- and Post-Assessments

Group	Week	Mean	Standard Deviation
Reading			
Experimental	0	76.6600	14.8785
	6	71.4200	12.7264
Control	0	67.3777	15.5377
	6	68.3111	14.1096
Writing			
Experimental	0	121.7000	20.9072
	6	113.0600	27.8468
Control	0	115.8888	21.2327
	6	119.9777	21.2308

Note. $n = 95$.

Table 6
Differences Between Pre- and Post-Treatment Measures of Attitude Toward Reading and Writing

	t	p < t	Mean	SD
Positive Readers				
Reading Difference	-.96	.3585	-4.000	14.4599
Writing Difference	.47	.6444	4.7500	34.6754
Negative Readers				
Reading Difference	4.93	.0003	16.07	11.7506
Writing Difference	1.72	.1116	16.38	34.4033
Positive Writers				
Reading Difference	2.47	.0282	10.000	15.1505
Writing Difference	.22	.8265	1.7857	29.8719
Negative Writers				
Reading Difference	.36	.7260	1.9090	17.5639
Writing Difference	1.97	.0774	22.2727	37.5342

Note. $n = 25$.

Table 7
Spearman Rank Correlations Between Extreme Reading and Writing Attitudes

Variables	r ranks	p < r
Pre-		
Positive pre-reading and positive pre-writing	.54386*	.0676
Positive pre-writing and positive pre-reading	.51045*	.0622
Negative Pre-reading and negative pre-writing	.02755	.9288
Negative pre-writing and negative pre-reading	-.19134	.5730
Post-		
Positive post-reading and positive post-writing	.44444	.1113
Positive post-writing and positive post-reading	.53941*	.0703
Negative post-reading and negative post-writing	.444628	.1264
Negative post-writing and negative post-reading	-.100000	.7699

Note. n = 25.

Table 8
Correlations Between Pre- and Post-Assessment Beliefs: Reading and Writing Attitude

	Pre			
	Reading		Writing	
	Positive	Negative	Positive	Negative
WC	-.1644	.45763	.27155	.56294
($p <$	.6497)	(.1158)	(.3477)	(.0714)
WE	-.19717	-.18043	.60550	.15932
	(.5391)	(.5553)	(.0217)	(.6398)
RE	-.00717	.12520	.78760	.32020
	(.9824)	(.6836)	(.0008)	(.3371)
RC	.15002	-.00282	.55777	.07817
	(.6417)	(.9927)	(.0382)	(.8193)

	Post			
	Reading		Writing	
	Positive	Negative	Positive	Negative
WC	.30010	-.18743	.30544	.56294
($p <$	.3433)	(.5398)	(.2883)	(.0714)
WE	.29577	.28602	-.02942	.583887
	(.3506)	(.3435)	(.9205)	(.0593)
RE	.45268	-.30525	.14462	.32020
	(.1395)	(.3105)	(.6118)	(.3371)
RC	.05170	-.24230	.23711	.07817
	(.8732)	(.4251)	(.4144)	(.8193)

Note. $n = 25$.
WE = writing expectations.
WC = writing consequences.
RE = reading expectations.
RC = reading consequences.

Table 9
ANOVA Table for Reading Attitude Extremes and Belief Statements Focusing on Consequences

Source	Degrees of Freedom	Sum of Squares	Mean Square	F-Ratio	$p < F$
Beliefs	1	23.1713	23.1713	8.59	.0077
Error	22	59.3286	2.6967		
Corrected Total	23	82.5000			

Note. $n = 25$.

Table 10
ANOVA for Reading Attitude Extremes and Belief Statements Focusing on Expectations

Source	Degrees of Freedom	Sum of Squares	Mean Square	F-Ratio	$p < F$
Beliefs	1	.18692308	.18692308	.03	.8557
Error	23	127.17307692	5.52926421		
Total	24	127.360			

Note. $n = 25$.

Table 11
Group Means for Reading Attitude Extremes and Belief Statements Which Focus on Consequences

	Mean Number of Statements Pertaining	
	to Consequences	to Expectations
High Attitude Readers	4.1538	2.25
Low Attitude Readers	2.1818	2.07
Standard Deviations	1.816	2.257

Note. n = 25.

Table 12

Related Correlations: Pre- and Post-Assessment Beliefs About Reading and Writing

	RE1	WC1	WE1	RC2	RE2	WC2	WE2
RC1	-.28119*	.55318*	-.12374	.18814	-.02013	.25052	.12060
p <	.0058	.0001	.2322	.0679	.8465	.0143	.2444
RE1		.08579	.33418*	-.02071	.11782	.04687	.12838
		.4085	.0009	.8421	.2555	.6520	.2150
WC1			-.20019	.08189	.02081	.26962*	.10131
			.0518	.4301	.8414	.0082	.3286
WE1				.03394	.05764	.03833	.07837
				.7441	.5790	.7123	.4503
RC2					-.03939	.58162*	-.16611
					.7047	.0001	.1077
RE2						-.16497	.51203*
						.1101	.0001
WC2							-.24463
							.0169

Note. n = 95.
RC1 = Pre-Reading Consequences. RE1 = Pre-Reading Expectations.
WC1 = Pre-Writing Consequences. WE1 = Pre-Writing Expectations.
RC2 = Post-Reading Consequences. RE2 = Post-Reading Expectations.
WC2 = Post-Writing Consequences. WE2 = Post-Writing Expectations.

Table 13
Differences on Pre- and Post-Treatment Attitude Measures

Positive Pre-reading	Negative Pre-reading	Positive Pre-writing	Negative Pre-writing
2	24	- 5	- 9
- 7	27	13	54
4	42	-22	69
-13	22	29	38
29	2	-49	21
- 3	11	-15	60
-23	9	27	54
-29	14	- 7	-46
- 3	18	1	10
- 5	- 3	29	21
No change	10	-22	64
	10	-42	
	23	-27	
		16	
Total Lost:			
83	3	181	55
Total Gained:			
35	212	115	391
Sample Size:			
11	13	14	11